IN THE CLAIMS:

This listing of claims will replace all prior versions, and listings of claims in the application:

1. (Currently Amended) A method for classifying consumers in clusters, comprising:

generating a plurality of classification trees each including both behavioral and demographic consumer segmenting variables for classifying a given consumer population, each of said classification trees including a plurality of decision nodes and a plurality of terminal nodes, and producing a consumer cluster set having a plurality of consumer clusters ~~being~~ represented by the terminal nodes, each decision node indicating a certain portion of the consumer population and splitting the certain portion of the consumer population into at least two other nodes in response to one of the consumer segmenting variables; and

searching said consumer cluster sets for an optimal consumer cluster set that optimizes a measure of the behavioral and demographic data, ~~said optimal consumer cluster set having a plurality of consumer clusters,~~

~~wherein each consumer in the set of consumers is included in only one of the consumer clusters in the optimal consumer cluster set,~~

wherein consumers in each consumer cluster of said plurality of consumer clusters in the optimal consumer cluster set have ~~substantially~~ similar behavioral and demographic characteristics to each other and different behavioral or demographic characteristics from consumers in all other consumer clusters of said plurality of consumer clusters in the optimal consumer cluster set,

wherein the searching includes:

storing profile definitions data for defining evaluation profiles to evaluate partitioning of the consumer population;

determining counts for each of the decision nodes of each of the classification trees, the counts including a right split count, a left split count, and a total count for each of the decision nodes;

storing profile data in the form of summaries of the counts;

storing segment definitions data including variables used to define segments;

~~determining a performance for each of the classification trees based on the evaluation profile data and the summaries of counts, wherein the determining a performance includes calculating a measure for each of the decision nodes of each of the classification trees based on the counts of each decision node; and~~

comparing ~~the~~ performance of the classification trees based on stored profile definitions data, profile data, and segment definitions data to determine the classification tree producing the optimal consumer cluster set, and

~~whereby~~ using the consumer clusters in the optimal consumer cluster set ~~are used~~ to focus marketing on groups of consumers ~~likely to purchase a marketed product or service~~.

2. (Previously Amended) The method of classifying consumers according to Claim 1, wherein said classification trees use Zhang's methodology.

3. (Previously Amended) The method of classifying consumers according to Claim 1, wherein said searching uses a partitioning program.

4. (Currently Amended) A segmentation system for classifying consumers in clusters, comprising:

means for generating a plurality of classification trees each including both behavioral and demographic consumer segmenting variables for classifying a given consumer population, each of said classification trees including a plurality of decision nodes and a plurality of terminal nodes, and producing a consumer cluster set having a plurality of consumer clusters ~~being~~ represented by the terminal nodes, each decision node indicating a certain portion of the consumer population and splitting the certain portion of the consumer population into at least two other nodes in response to one of the consumer segmenting variables; and

means for searching said consumer cluster sets for an optimal consumer cluster set that optimizes a measure of the behavioral and demographic data, ~~said optimal consumer cluster set having a plurality of consumer clusters,~~

~~wherein each consumer in the set of consumers is included in only one of the consumer clusters in the optimal consumer cluster set,~~

wherein consumers in each consumer cluster of said plurality of ~~optimal~~ consumer clusters in the optimal consumer cluster set have ~~substantially~~ similar behavioral and demographic characteristics to each other and different behavioral or demographic characteristics from consumers in all other consumer clusters of said plurality of consumer clusters in the optimal consumer cluster set,

wherein the means for searching includes:

means for storing profile definitions data for defining evaluation profiles to evaluate partitioning of the consumer population;

means for determining counts for each of the decision nodes of each of the classification trees, the counts including a right split count, a left split count, and a total count for each of the decision nodes;

means for storing profile data in the form of summaries of the counts;

means for storing segment definitions data including variables used to define segments; and

~~means for determining a performance for each of the classification trees based on the evaluation profile data and the summaries of counts, wherein the determining a performance includes calculating a measure for each of the decision nodes of each of the classification trees based on the counts of each decision node; and~~

means for comparing ~~the~~ performance of the classification trees based on stored profile definitions data, profile data, and segment definitions data to determine the classification tree producing the optimal consumer cluster set,

whereby the consumer clusters in the optimal consumer cluster set are used to focus marketing on groups of consumers ~~likely to purchase a marketed product or service~~.

5. (Previously Amended) The segmentation system according to Claim 4, wherein said classification trees use Zhang's methodology.

6. (Previously Amended) The segmentation system according to Claim 4, wherein said means for searching uses a partitioning program.

7. (Currently Amended) A segmentation system for classifying consumers in clusters, comprising:

a partitioning module adapted to create classification trees to define consumer cluster sets each including both behavioral and demographic consumer segmenting variables for classifying a given consumer population, each of said classification trees including a plurality of decision nodes and a plurality of terminal nodes, and producing a consumer cluster set having a plurality of consumer clusters ~~being~~ represented by the terminal nodes, each decision node indicating a certain portion of the consumer population and splitting the certain portion of the consumer population into at least two other nodes in response to one of the consumer segmenting variables;

a profile definitions module for supplying profile definitions data to said partitioning module; and

a cluster assignments module for storing the consumer cluster sets generated by said partitioning module,

wherein said partitioning module generates an optimal classification tree that optimizes a measure of the behavioral and demographic data resulting in an optimal consumer cluster set having a plurality of consumer clusters with consumers in each consumer cluster of said plurality of consumer clusters in the optimal consumer cluster set having ~~a substantial~~ similar behavioral and demographic characteristics to each other and different behavioral and demographic characteristics from consumers in all other consumer clusters of said plurality of consumer clusters in the optimal consumer cluster set,

~~wherein each consumer in the set of consumers is included in only one of the consumer clusters in the optimal consumer cluster set,~~

wherein said partitioning module:

stores profile definitions data for defining evaluation profiles to evaluate partitioning of the consumer population;

determines counts for each of the decision nodes of each of the classification trees, the counts including a right split count, a left split count, and a total count for each of the decision nodes;

stores profile data in the form summaries of the counts;

stores segment definition data including variables used to define segments; and

~~determines a performance for each of the classification trees based on the evaluation profile data and the summaries of counts, wherein the determining a performance includes calculating a measure for each of the decision nodes of each of the classification trees based on the counts of each decision node; and~~

compares the performance of the classification trees based on stored profile definitions data, profile data, and segment definitions data to determine the classification tree producing the optimal consumer cluster set,

whereby the consumer clusters in the optimal consumer cluster set are used to focus marketing on groups of consumers ~~likely to purchase a marketed product or service~~.

14. (Cancelled) The method according to Claim 1, wherein said determining a performance includes maximizing the following:

$$LFract_{vds} \times RFract_{vds} \times TFract_{s} \times \sum_{p} (LPen_{p(dvs)} - RPen_{p(vds)})^2 ,$$

where:

$LFract_{vds}$ ≡ $LCount_{vds}$ / $TCount_s$,

$RFract_{vds}$ ≡ $RCount_{vds}$ / $TCount_s$,

$TFract_s$ ≡ $TCount_s$ / Total population over all segments (S),

$LCount_{vds}$ ≡ For a given split of segment s, dimension d, by value v, the count of population in the left split,

$RCount_{vds}$ ≡ For a given split of segment s, dimension d, by value v, the count of population in the right split,

$TCount_s$ ≡ For a given split of segment s, the count of population in the segment prior to being split,

$LPen_{p(vds)}$ ≡ For a given profile p with a split of segment s, dimension d, by value v, count of profile in the left $split_{p(vds)}$ / Count of base in the left $split_{p(vds)}$, and

$RPen_{p(vds)}$ ≡ For a given profile p with a split of segment s, dimension d, by value v, count of profile in the right $split_{p(vds)}$ / Count of base in the right $split_{p(vds)}$.

15. (Cancelled) The segmentation system according to Claim 4, wherein said means for determining a performance includes means for maximizing the following:

$$LFract_{vds} \times RFract_{vds} \times TFract_{s} \times \sum_{p} (LPen_{p(dvs)} - RPen_{p(vds)})^2 ,$$

where:

$LFract_{vds} \equiv LCount_{vds} / TCount_s$,

$RFract_{vds} \equiv RCount_{vds} / TCount_s$,

$TFract_s \equiv TCount_s$ / Total population over all segments (S),

$LCount_{vds} \equiv$ For a given split of segment s, dimension d, by value v, the count of population in the left split,

$RCount_{vds} \equiv$ For a given split of segment s, dimension d, by value v, the count of population in the right split,

$TCount_s \equiv$ For a given split of segment s, the count of population in the segment prior to being split,

$LPen_{p(vds)} \equiv$ For a given profile p with a split of segment s, dimension d, by value v, count of profile in the left $split_{p(vds)}$ / Count of base in the left $split_{p(vds)}$, and

$RPen_{p(vds)} \equiv$ For a given profile p with a split of segment s, dimension d, by value v, count of profile in the right $split_{p(vds)}$ / Count of base in the right $split_{p(vds)}$.

16. (Cancelled) The segmentation system according to Claim 7, wherein said determining a performance includes maximizing the following:

$$LFract_{vds} \times RFract_{vds} \times TFract_s \times \sum_p (LPen_{p(dvs)} - RPen_{p(vds)})^2 ,$$

where:

$LFract_{vds} \equiv LCount_{vds} / TCount_s$,

$RFract_{vds} \equiv RCount_{vds} / TCount_s$,

$TFract_s \equiv TCount_s$ / Total population over all segments (S),

$LCount_{vds} \equiv$ For a given split of segment s, dimension d, by value v, the count of population in the left split,

$RCount_{vds} \equiv$ For a given split of segment s, dimension d, by value v, the count of population in the right split,

$TCount_s$ ≡ For a given split of segment s, the count of population in the segment prior to being split,

$LPen_{p(vds)}$ ≡ For a given profile p with a split of segment s, dimension d, by value v, count of profile in the left $split_{p(vds)}$ / Count of base in the left $split_{p(vds)}$,

$RPen_{p(vds)}$ ≡ For a given profile p with a split of segment s, dimension d, by value v, count of profile in the right $split_{p(vds)}$ / Count of base in the right $split_{p(vds)}$.